

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/077201 A1

(51) International Patent Classification⁷: **A23J 1/14**,
A23K 1/18, 1/14, C11B 1/10, A23J 3/14

(21) International Application Number:
PCT/CA2005/000201

(22) International Filing Date: 17 February 2005 (17.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/544,346 17 February 2004 (17.02.2004) US

(71) Applicant (for all designated States except US): **BURCON
NUTRASCIENCE (MB) CORP.** [CA/CA]; 1388 Waller
Avenue, Winnipeg, Manitoba R3T 1P9 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SCHWEIZER,**

Martin [DE/CA]; 404-605 River Avenue, Winnipeg,
Manitoba R3L 0E7 (CA). **GREEN, Brent E.** [CA/CA];
586 Rathgar Avenue, Winnipeg, Manitoba R3L 1G4 (CA).
WILLARDSEN, Randy [US/US]; 1933 Park Oak Drive,
Roseville, California 95661 (US).

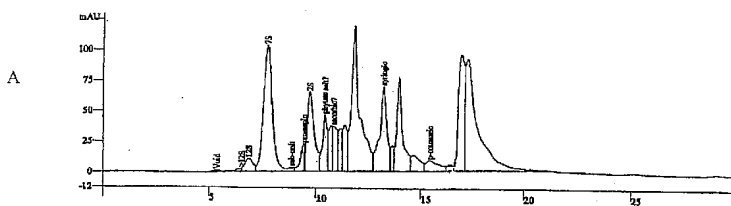
(74) Agents: **STEWART, Michael I.** et al.; Sim & McBurney,
6th Floor, 330 University Avenue, Toronto, Ontario M5G
1R7 (CA).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

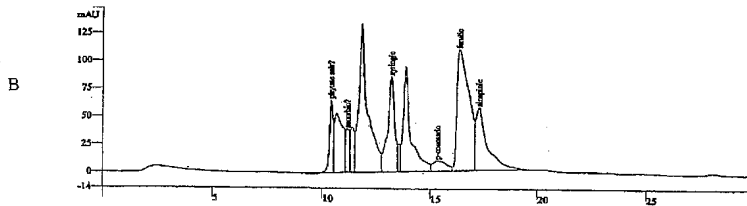
[Continued on next page]

(54) Title: PREPARATION OF CANOLA PROTEIN ISOLATE AND USE IN AQUACULTURE

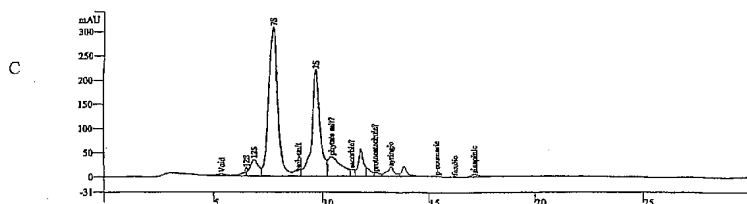
Bench Extract December 11, 2003: SEC-HPLC chromatogram 1:4 dil. 50-uL injection.



Bench DF Permeate December 12, 2003: SEC-HPLC chromatogram no dil.
50-uL injection.



Bench DF UF Dialyzed Isolate December 17, 2003: SEC-HPLC chromatogram 1%
50-uL injection.



(57) **Abstract:** A canola protein isolate useful in aquaculture is formed by a procedure in which canola oil seed meal is extracted to cause solubilization of protein in the canola oil seed meal to form an aqueous protein solution having a protein content of about 5 to about 40 g/L and a pH of about 5 to about 6.8. After separation of the aqueous protein solution from the residual canola oil seed meal, the protein concentration is increased to at least about 50 g/L while maintaining the ionic strength substantially constant by using a selective membrane technique. The concentrated protein solution is dried to provide a canola protein isolate having a protein content of at least about 90 wt% (N x 6.25) d.b.

WO 2005/077201 A1



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*